

REMARKS

Claims 1-38 are pending, and again all stand rejected. Independent claims 1, 18, and 33 are rejected as being obvious under 35 U.S.C. 103(a) from *Wang* (U.S. Patent No. 5,918,184). Upon further study of the *Wang* reference, Applicant still perceives very significant differences from the present claimed invention. Accordingly, the claims are now amended in order to clarify and emphasize these differences, and thus expedite allowance without conceding that the claims as originally filed lack novelty. All of the present amendments are fully supported by the specification, and introduce no new matter.

Applicant respectfully directs the Examiner's attention to column 2 of *Wang*, lines 45-52, where it is stated that if a signal power to noise power ratio drops below a threshold, then a corresponding ratio is measured for at least one other base station. This aspect of *Wang* is very different from the present invention, which says that a handover occurs "without any need for the terminal equipment to visit, monitor, or directly measure the adjacent channel being used by another base station" (page 4, lines 17-18). The present application also explains that, "[i]nstead of the terminal equipment testing signal strengths on different frequencies or channels that are associated with different base stations, the terminal equipment of the present invention is capable of deducing adjacent signal strength based upon the effects of adjacent channel interference" (see page 5, lines 8-11). So, it should be clear that these are two very different inventions, and a primary advantage of the present claimed invention is that it avoids the unnecessary measurements that occur in *Wang*.

Brief Summary of the Invention

In a wireless telephone system, a mobile user will frequently move from one cell to another. Suppose the mobile user is communicating via a first base station, and there is a nearby second base station that uses an adjacent frequency which is interfering with the communication between the user and the first base station. The second base station is part of a separate network, so the user does not have the option of switching over to the second base

station. The present invention provides an improved way for the mobile phone to decide when to perform an interfrequency handover (HO) to another frequency, so that the user can continue to communicate via the first base station, but without suffering from the adjacent frequency interference from the second base station. This HO decision is made by measuring the relationship between adjacent channel power and the user's own channel power. According to the present claimed invention, this measurement is accomplished indirectly, by comparing the power before and after processing by a digital pulse shaping filter.

Dependent Claims 6 and 25

Applicant would also like to respectfully mention that the rejections of dependent claims 6 and 25 in the final Office Action did not point to features in *Wang* that are comparable to the features of the present claims. Present claims 6 and 25 are discussed at page 6 of the final Office Action, which refers to figure 4 of *Wang*, and also column 5, lines 35-64 of *Wang*. However, Applicant has carefully studied these portions of *Wang*, and cannot find features similar to those of present claims 6 and 25.

In the present application, the paragraph beginning at line 29 on page 7 discusses this aspect of the present claimed invention. This aspect involves adjacent frequency channels that are different from similar sets of adjacent channels associated with other base stations. This aspect is illustrated in figure 4 of the present application, and is only applicable where the handover is an interfrequency handover that maintains communication with the same base station. *Wang* does not teach or suggest any handover except a handover from one base station to another, and therefore the feature of claims 6 and 25 would be of no use in the context of *Wang*. The purpose of the features claimed in claims 6 and 25 is to allow a mobile unit to keep communicating with a base station, but using an alternative channel that is adjacent to the communication channel originally used. Thus, if there is interference coming from one end of the adjacent channels, then the mobile station can shift toward the other end.

Of course, the present amendments of the independent claims should render all of the claims allowable, and therefore it is not necessary to now argue separately for the allowability of claims 6 and 25. Nevertheless, Applicant wishes to respectfully emphasize that *Wang* does not render claims 6 or 25 obvious, either before the present claim amendments, or after.

CONCLUSION

Because the cited *Wang* reference does not teach or suggest critical elements of the present claimed invention, it is respectfully submitted that the present claims are novel and patentable. Early allowance of claims 1-38 is earnestly solicited. Applicant would be grateful if the Examiner would please contact Applicant's attorney by telephone if the Examiner detects anything in the present response that might hinder a speedy allowance.

Respectfully submitted,

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